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Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention, 1975): Revision of the Convention

Preparation of Phase III of the TIR revision process

Note by the secretariat

Background and mandate

1. At its 146th session (June 2017), the Working Party (WP.30) was briefed about the latest development in the International TIR Data Bank (ITDB) and the launch of the new ITDB. In particular, the secretariat reported on: (a) a meeting with the services of the European Commission to discuss the development of the ITDB database on customs offices on 30 May 2017, and (b) a presentation on the new ITDB at the session of the European Union Customs Expert Group on 31 May 2017, both in Brussels. Furthermore, WP.30 was briefed by the Chair of the Group of Experts on the Legal Aspects of Computerization of the TIR Procedure (GE.2) about the outcome of its fourth session (16 and 17 May 2017), which included as one of its main findings the decision to make the use of the ITDB mandatory for contracting parties applying the optional Annex on eTIR (see ECE/TRANS/WP.30/292, paras. 16 and 22).

2. TIR Executive Board (TIRExB) at its seventy-fifth session (December 2017), while discussing the mandatory use of the ITDB for all contracting parties of the TIR Convention, noted the current limited use of the ITDB by contracting parties. It concluded that, before ITDB is set as mandatory in the TIR Convention, more attention should be paid to awareness-raising in the use of the ITDB. To this end, the Board welcomed a proposal by the secretariat to update the ITDB guides and requested the availability of these guides in the three official languages of the TIR Convention.

3. In line with the above mandate, the secretariat prepared the ITDB Web Service Customs Guide as contained in Annex to this document.

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Annex

ITDB Web Service

Customs Guide

UNECE TIR secretariat

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Annex

Purpose

1. This document describes the web service interface of the International TIR Data Bank (ITDB) and guides on how to connect the national information technology (IT) system to the ITDB web service.

Audience

2. This guide targets customs officers who may coordinate in their administrations the establishment of a connection with the ITDB web service. The TIR secretariat also provides an IT guide that targets IT experts who will be in charge of fulfilling the necessary technical tasks for such a connection.

I. Introducing ITDB web service

A. First things first: The terminology

3. The data bank developed by the United Nations Economic Commission for Europe (UNECE) TIR secretariat is called International TIR Data Bank (ITDB). The data bank is available to users from customs and guaranteeing associations via the web application/webpage.[1] The ITDB also has a web service interface that allows a connection with national information technology (IT) systems. Thus, the term "ITDB web service" does not refer to a new programme, but just to an interface/facility of the ITDB. This document aims at providing guidance on the ITDB web service connection only.

B. A short overview: What is the ITDB?

4. The ITDB is an international repository of information introduced by the TIR secretariat in 1999, in accordance with the Terms of Reference (ToR) of the TIR Executive Board (TIRExB) which requires that TIRExB coordinate and foster the exchange of information between competent authorities of contracting parties, associations and international organizations (Article 2 (d) ToR).

5. The ITDB contains, inter alia, information on persons authorized by contracting parties to utilize the TIR procedure (TIR Carnet holders). The TIR secretariat hosts ITDB and ensures that all Contracting parties can enter, update and check contact information as well as the status of the holders (i.e. authorized, withdrawn, end of activity or excluded). In this way, it also serves the purpose of one of the five pillars of the TIR Convention: controlled access to the TIR system.

6. The latest version of the ITDB was launched on 9 May 2017. It is currently available in the three official languages of UNECE (English, French and Russian) and also in four other languages of TIR Contracting parties. More languages can be added upon provision

[1] There are guides on the use of web application/webpage for the users from customs and guaranteeing associations. The guides, available in English and Russian, explain the manual use of the ITDB for entering or checking data. The guides can be obtained from the ITDB webpage after logging in with a username and password: itdb.unece.org

of translation by contracting parties. The new version contains, in addition to the holders' repository, the electronic UNECE register of customs sealing devices and customs stamps, with the aim to provide TIR Customs Focal Points and customs officers in the field with an online facility to check seals and stamps. The TIR secretariat maintains and updates the register in accordance with a mandate from TIRExB.

7. The ITDB is also part of the eTIR Reference Model (which contains the description of the TIR Procedure Computerization Project) and will be used in the eTIR system to ensure that only authorized holders can benefit from the system. To this end, there will be a check with the ITDB to ensure that the holder, to whom the guarantee chain issues a guarantee, has the "authorized" status.

C. What is the ITDB web service?

8. The web service is a service that allows machine-to-machine (server-to-server) communication via the web. The availability of the ITDB web service means that national customs IT systems are able to communicate with the ITDB without human intervention. Thus, the queries to the ITDB on the status of a TIR Carnet holder can be automated. With the latest version of the ITDB, the TIR secretariat developed web services with the latest technology that make it easy to connect (RESTful web services).

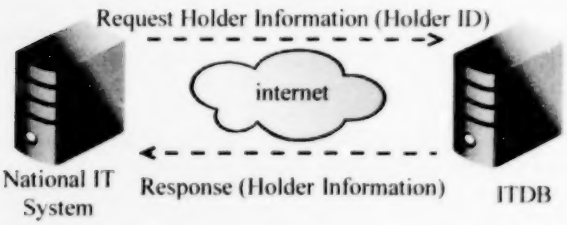
9. The practical implication of the ITDB web service connection will be as follows: customs officers in the field will no longer need to log into the ITDB webpage to check for the holder status. In the past, in order to check for the holder status for every TIR operation, customs officers needed to log into the ITDB webpage and search for the holder. With the web service technology, instead of the customs officer, the national IT system will be making this query to the ITDB, based on the identification (ID) number of the TIR Carnet holder.

10. The ITDB web service is available 24/7, using a secure connection that is available only to competent authorities. Also, the information entered by any customs authority in the ITDB is immediately accessible via the web services which means that the ITDB web services provide real-time data.

D. How does the ITDB web service function?

11. Figure 1 illustrates the functioning of the national IT system-ITDB web service connection for the TIR Carnet holder information check. The machine-to-machine communication principle is common for any use of the ITDB web service and there may be other possibilities in the future to benefit from the ITDB as explained in Section I/F. Thus, the below diagram may be reproduced according to different uses of the ITDB.

Figure 1
Web Service Conversation



12. Figure I shows that, during a TIR transport, when the TIR Carnet is processed at a customs office, the national IT system will make a query to the ITDB according to the holder ID, and the ITDB, in return, will provide the holder information including the status. Thus, it will be possible to check the status of a holder for every TIR operation.

13. At this point, it is worth emphasizing that it is a decision of the respective customs authorities how the ITDB data will be used by national IT systems. Further information on this point is available in Section II/D.

E. What are the benefits of the ITDB web service?[2]

14. The primary benefit of the ITDB web service is allowing a TIR Carnet holder status check for every TIR operation. In the manual use of the ITDB, customs officers, while processing a TIR Carnet in the national TIR programme (programme used for the electronic processing of TIR Carnets within the country or economic union), in case they want to utilize the data in the ITDB, need to log into the ITDB webpage on another screen and check for holder data. This is a time-consuming process and experience has shown that it is not done for most TIR operations. With the web service connection, the ITDB data will be fully available thanks to automated queries from the national IT system. Thus, each TIR operation will be based on a check from the ITDB if the holder is authorized or not (i.e. withdrawn, end of activity or excluded).

15. Apart from its benefits for customs authorities, the use of the ITDB web service will contribute to promoting the use of the ITDB in general and improving data quality (as the data will be kept up-to-date).

16. It should be added that this feature of the ITDB is part of the eTIR Reference Model. Thus, in the future, this check will need to be done by every Contracting Party in the eTIR system. Indeed, the development of the web services was mandated by TIRExB further to this role in the future eTIR system (ECE/TRANS/WP.30/AC.2/2013/1, para. 10).

17. The ITDB web service making machine-to-machine communication possible, allows, in general, the full use of the ITDB by customs authorities to consult data during TIR transports. In this manner, it may provide further benefits with the provision of new ITDB modules, as explained in the next section.

F. What are the other possibilities of the ITDB web service?

18. In addition to the holders' repository, the ITDB has another module operational and two other planned. As the new infrastructure of the ITDB allows providing web services for any of its modules easily, it will be possible to develop web services for all these modules on demand.[3]

1. Customs sealing devices and customs stamps

19. The UNECE register of customs sealing devices and customs stamps is available online since 2008 and is part of the latest version of the ITDB. It contains sketches and descriptions of seals and stamps, and allows customs officers to verify the authenticity of foreign seals and stamps used in the framework of the TIR procedure. In its current

[2] This section covers only the benefits of the ITDB web service, not the overall benefit of the ITDB for the TIR system.

[3] Web services for additional modules may be developed upon request from Contracting Parties, subject to the approval by TIRExB.

functionality, as in the case of holders' repository, it is used by customs officers by logging into the ITDB webpage. The web service for this module can be developed in order to provide the seals and stamps information of the customs office of departure to the customs offices en route and destination.

2. Approved customs offices

20. TIRExB agreed on the development of a module in the ITDB on customs offices approved for accomplishing TIR operations. This is expected to increase the transparency of the TIR system by providing up-to-date and standard information on where TIR operations can be accomplished. The TIR secretariat is developing this module and envisages to launch it in 2018. As the information on approved customs offices is provided by customs authorities for the benefit of TIR Carnet holders, this database will be shared at a public ITDB webpage. In addition, the web service for this module can be developed for automatic transmission of data by those administrations that already have databases on customs offices.

3. Certificates of Approval

21. TIRExB also agreed on the inclusion of Certificates of Approval (CoA) in the ITDB. This module is in its planning stage and envisaged to be launched in 2019. The web service for this module can be developed for data submission and/or for utilizing data during TIR transports. Administrations that already dispose of an IT system managing CoA can use web services for the automatic transmission of data on CoA to the ITDB. For use during TIR transports, data on CoA of a vehicle can be provided to customs offices of departure, destination and en route.

G. Who can use the ITDB web service?

22. Customs authorities from all Contracting parties to the TIR Convention are strongly encouraged to use the web service.

H. Is there any cost?

23. The use of ITDB including web service interface is free of charge.

II. How to connect to the ITDB web service

A. The engagement of the customs department in the connection process

24. Whereas the connection to the ITDB web service seems to be an IT question, the customs/customs control department (hereinafter referred to as customs department) plays an important role by providing guidance throughout the connection process. As the web service means machine-to machine communication, the actual work of establishing a connection is done by the IT department. At the same time, it is essential that the customs department considers and decides customs specific aspects of the connection well before the IT department takes the necessary steps to establish a connection. These aspects include the scope of queries to the ITDB and the use of the received data, as covered in detail in Section II/D.

25. This guide is prepared to assist customs authorities in fulfilling this guiding role within their organization.

B. The role of each actor

26. Customs and IT departments are two main bodies taking part in the connection process. Additionally, the involvement of the national TIR Customs Focal Point in this process may be beneficial, due to their role in the TIR system as a contact point for the application of the TIR Convention at the national level. Successful coordination between relevant actors can simplify and expedite the connection process.

27. In this regard, the role of each actor may be as follows:

- TIR Customs Focal Point: Initiating the connection, monitoring the process and establishing contact with the TIR secretariat.
- Customs department: Deciding on the use of the ITDB web service and guiding on how to use the received data.
- IT department: Establishing the connection with the ITDB web service.

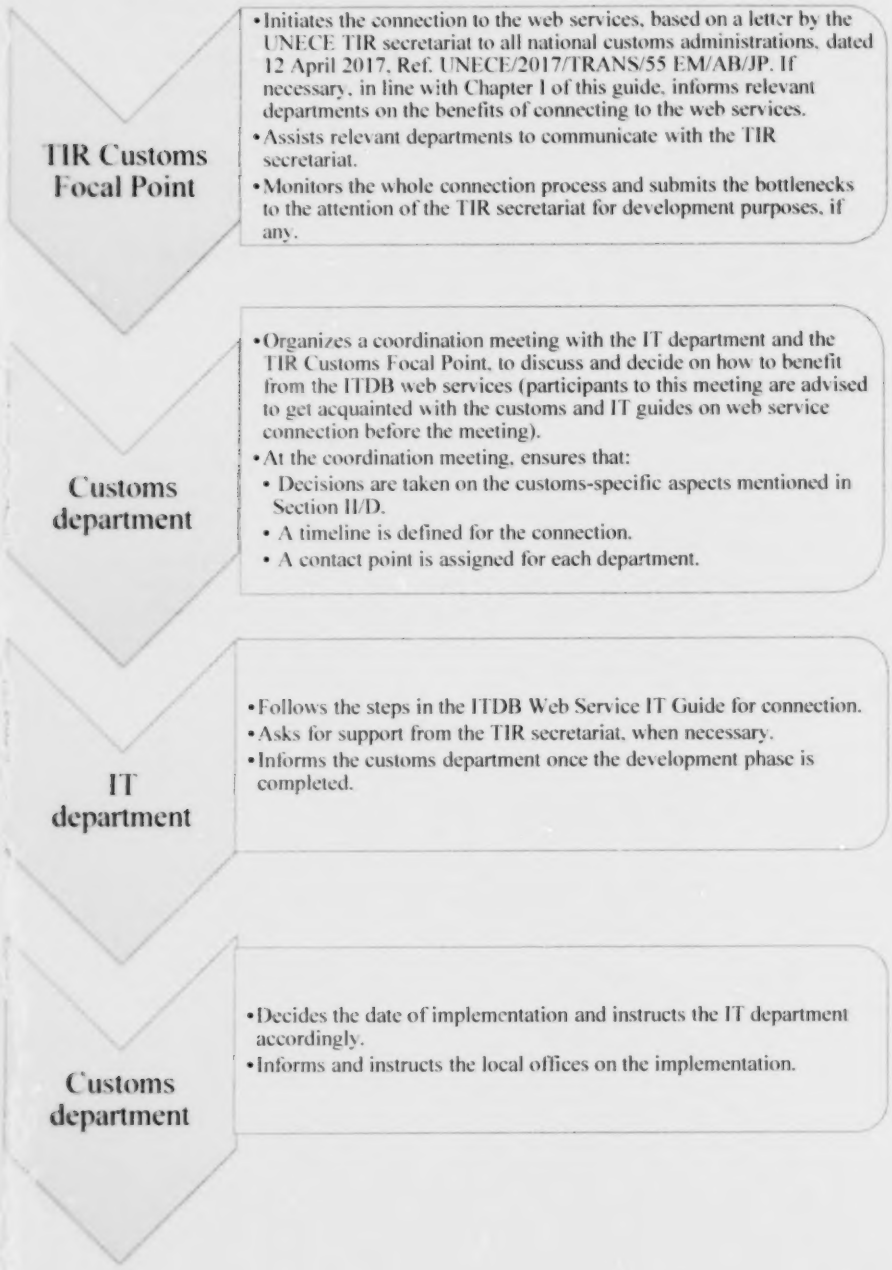
C. Organization of work and sample workflow

28. The connection process may be divided into three stages: preparation, setting the connection and implementation. The TIR Customs Focal Point and the customs department perform an active part in the preparation stage; the IT department sets the connection; and, lastly, the customs department again plays a role at the implementation stage.

29. In Figure II there is a sample workflow which shows the details of the role of each actor within the connection process. It is worth reiterating that there is also a step-by-step guide, called "ITDB Web Service IT Guide", providing guidance to IT specialists on setting the connection.[4]

[4] "ITDB Web Service IT Guide" is available in English and Russian at the ITDB webpage. The guide may be downloaded from the webpage by an ITDB user or may be requested from the TIR secretariat.

Figure II
Sample workflow for the ITDB web service connection


TIR Customs Focal Point
• Initiates the connection to the web services, based on a letter by the UNECE TIR secretariat to all national customs administrations, dated 12 April 2017, Ref. UNECE/2017/TRANS/55 EM/AB/JP. If necessary, in line with Chapter I of this guide, informs relevant departments on the benefits of connecting to the web services.
• Assists relevant departments to communicate with the TIR secretariat.
• Monitors the whole connection process and submits the bottlenecks to the attention of the TIR secretariat for development purposes, if any.
Customs department
• Organizes a coordination meeting with the IT department and the TIR Customs Focal Point, to discuss and decide on how to benefit from the ITDB web services (participants to this meeting are advised to get acquainted with the customs and IT guides on web service connection before the meeting).
• At the coordination meeting, ensures that:
• Decisions are taken on the customs-specific aspects mentioned in Section II/D.
• A timeline is defined for the connection.
• A contact point is assigned for each department.
IT department
• Follows the steps in the ITDB Web Service IT Guide for connection.
• Asks for support from the TIR secretariat, when necessary.
• Informs the customs department once the development phase is completed.
Customs department
• Decides the date of implementation and instructs the IT department accordingly.
• Informs and instructs the local offices on the implementation.

D. Guidance from the customs department

1. How to use the ITDB data for TIR operations

30. At the preparation stage, the customs department decides on how to benefit from the ITDB for actual TIR operations. In this regard, customs authorities need to select between the following two options:

(a) Using the ITDB web service just to check the holder status;

This will be the very basic use of the ITDB. In this model, from the response message of the ITDB, the national system only checks if the holder is authorized or not.

There are also two ways of using this data: the stricter way of interrupting a TIR transport if the holder is not authorized, and the more flexible way of using this data only for consultation purposes and leaving a decision to the discretion of the customs officer on duty.

(b) Using additional data from the ITDB.

Such additional data may relate to other fields in the holder module such as the company name, address, reason for exclusion, etc. This option has no additional difficulty in terms of connection, as the information will be contained in the same response message from the ITDB. However, it may require modifications in the national TIR programme such as adding pop-ups or new boxes to show the received data.

It should be added that the standard ITDB response messages can be expanded by the TIR secretariat with additional data from the holder module, upon request.

2. Issues regarding the connection to the ITDB

31. Once the customs department decides on how ITDB data will be used, it will be necessary to consider and clarify, in collaboration with the IT department, the following points related to the connection. These points are classified according to the query and the received data:

(a) With regard to the query by the national IT system:

- Informing the IT department that the query is made by the holder ID number: This may require an action at the national level in case the holder ID is, at that time, not entered in the national TIR programme.
- Clarifying at which stage the query is made, e.g. before registration of the TIR Carnet: If the TIR data is received via an external source, such as TIR Electronic Pre-Declaration Programme (TIR- EPD) of the International Road Transport Union (IRU), this may also be taken into account while determining when the query will be made.
- Deciding if additional data is needed from the ITDB: In case the customs authorities want to request data which is not included in standard ITDB response messages, this request needs to be transmitted to the TIR secretariat before the connection.[1]

(b) With regard to the data received from the ITDB:

- Deciding how the holder status will be used by the national IT system: As explained above, customs authorities may prefer a more or less strict way of using such data.

[1] Standard ITDB response messages are available in the ITDB Web Service IT Guide

The IT department may be requested either not to allow the further use of a TIR Carnet when the holder status is not authorized, or to show such data on the screen of the officer, which means that it is at their discretion how to act on this information.

- Deciding possible modifications to the national TIR programme: If any data is going to be brought to the screen of the officer, this may require modifications to the national programme such as opening a new box to display the information.

32. The below table constitutes a checklist for the customs department on the points explained above.

Checklist for the customs department on the ITDB web service connection

Process	*Issue*	*Decision*
Query by the national IT system	Use of the TIR Carnet holder ID	
	When the query to the ITDB shall be made	
	Data to be requested from the ITDB	
Data received from ITDB	How the holder status shall be used	
	Modifications to the national TIR programme	

E. Assistance by the UNECE TIR secretariat

33. The UNECE TIR secretariat is available to assist customs authorities at every stage of the work of connecting to the ITDB web service. In addition to this guide, which targets customs departments, there is also an IT guide, accessible via the ITDB webpage, which advises on technical matters. Thus, there is step-by-step guidance available for the entire process. Still, additional assistance may be provided, both in order to further clarify how the ITDB data can be used and also to assist with IT matters.